

A. In the Specification:

Please substitute the following paragraph for the paragraph on page 3 beginning at line 6:

5 Efforts today have centered on improving the
survival rates of stored oocytes by improving
cryopreservation techniques. According to Martino
A1 et al. (Martino et al., *Biol. Reprod.* 54: 1059 -
1069 (1996)), such efforts have focused on
10 comparing different cryoprotectants (Otoi et al.,
Theriogenology 40: 801-807 (1993); Dinnyes et al.,
Cryobiology 31: 569 - 570 (1994)) and different
freezing regimens (Lira et al., *Theriogenology* 35:
1225 - 1235 (1991)); or related vitrification
15 methods (Otoi et al., *Theriogenology* 40: 801 - 807
(1993); Otoi et al., *Cryobiology* 37: 77 - 85
(1998)).

Please substitute the following paragraph for the paragraph on page 12 beginning at line 17:

20 Oocytes or embryos are suspended in an
equilibration medium consisting of 4% (v/v)
ethylene glycol or other intracellular
cryoprotective agent in moderate concentration, in
A2 25 a base medium (TCM 199 or similar solutions)
supplemented with 20% fetal bovine serum, or bovine
serum albumin, or any other macromolecules with
surfactant effects at room temperature, or higher,
physiological temperatures (39°C for example) for
30 several minutes. Following this equilibration

A2
cont.

period, groups of oocytes or embryos are rinsed at least two times in small drops of vitrification solution consisting of 35% ethylene glycol (or other intracellular cryoprotectants in high concentration), 5% polyvinyl- pyrrolidone (or other macromolecules), 0.4 M trehalose (or other sugars) in base medium and 20% fetal bovine serum, or other surfactant compounds, as described above, for a few seconds and dropped on the surface of a steel cube, or other solid surface with good heat conductivity, which is cooled down to around -150°C to -180°C or similar subzero temperatures by partially immersing it into liquid or solid nitrogen or into other cooling agents. It is preferred that the drop size be about 4 μ l or smaller, more preferably 3 μ l or smaller, and yet more preferably 2 μ l or smaller, and yet more preferably 1 μ l or smaller, which allows instantaneous vitrification. The vitrified droplets can be moved with a nitrogen-cooled forceps or other tool into 1-ml cryovials or other suitable containers.

B. In the Claims:

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Please cancel claims 5-8 without prejudice.

Please substitute amended claim 1, below, for claim 1 as filed.

A3

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1. (AMENDED) ~~B~~ A method for the vitrification of biological materials, said method comprising the steps of: